

CFD Tracing of Unburned Hydrocarbon Deposits in Combustion Chamber Walls Due to Wall Quenching of Various Gasoline Mixtures

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The study of unburned hydrocarbons is crucial in the optimization of internal combustion engines in order to reduce the carbon footprint. A computational fluid dynamic (CFD) model using FLUENT was used in order to trace the unburned hydrocarbons of various air-fuel gasoline mixtures. The model includes the deposition of unburned hydrocarbon deposits in the combustion chamber wall due to wall quenching of the gasoline mixture. The amount of unburned hydrocarbons was traced at the exhaust stroke stage of combustion due to the scraping of the piston to the cylinder walls.

References

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